

CLAIMS

1. A method for preparing a composition for a coating, wherein a layered, inorganic filler is subjected to an ion exchange with a modifier, which modifier comprises at least two ionic groups, which groups are separated from each other by at least four atoms, and wherein the modified filler, together with a polymer, is dispersed in a diluent.
2. A method according to claim 1, wherein the layered, inorganic filler is a natural or synthetic clay with a cation exchange capacity of 30-200 milliequivalents per 100 grams.
3. A method according to claim 2, wherein the modifier comprises at least one cationic group.
4. A method according to claim 3, wherein the cationic group is an ammonium, phosphonium or sulfonium group.
5. A method according to claim 1, wherein the layered inorganic filler is a natural or synthetic layered double hydroxide.
6. A method according to claim 5, wherein the layered double hydroxide satisfies the formula (I):
- $$[M_{(1-x)}^{2+} M_x^{3+} (OH)_2] [A_{x/y} \cdot n H_2O] \quad (I),$$
- wherein M^{2+} is a bivalent cation, M^{3+} is a trivalent cation, x is a number between 0.15 and 0.5, y is 1 or 2, n is a number from 1 to 10, and A is an anion selected from the group consisting of Cl^- , Br^- , NO_3^- , SO_4^{2-} and CO_3^{2-} .
7. A method according to claim 5 or 6, wherein the modifier comprises at least one anionic group.
8. A method according to claim 7, wherein the anionic group is a carbonate, sulfonate, or phosphonate group.
9. A method according to any one of the preceding claims, wherein the modifier comprises an aromatic group.
10. A method according to any one of the preceding claims, wherein the modifier is an organic dye.

Sub A1

Sub A2²⁵

11. A method according to any one of the preceding claims, wherein the diluent is polar.

12. A method according to any one of the preceding claims, wherein the polymer is selected from the group of polyurethanes; polyacrylates; polymethacrylates; polyesters; polyethers; polyolefins; polystyrene; polyvinyl chloride; alkyds; nitrocellulose; epoxides; phenol resins; amino resins; silicones; polysiloxanes, organic-inorganic hybrid materials; and combinations thereof

13. A method according to any one of the preceding claims, wherein further an initiator is dispersed in the diluent.

14. A composition for coating obtainable according to any one of the preceding claims.

15. A composition for coating comprising a polymer and a modified layered inorganic filler dispersed in a diluent, wherein the filler is modified by ion exchange with a modifier which comprises at least two ionic groups, which groups are separated from each other by at least four atoms.

16. Use of a composition according to claim 14 or 15 for forming a coating.

17. A coating formed upon curing of an applied composition according to claim 14 or 15.

18. A layered inorganic filler modified by ion exchange with a modifier which comprises at least two ionic groups, which groups are separated from each other by at least four atoms.

add A4